Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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Claims 1-11 (cancelled without prejudice)

Claims 12 and 13 (withdrawn)

- 1 Claim 14 (new) A fuel cell power plant (110) comprising:
- 2 a fuel cell stack assembly (12); an inlet oxidant stream
- 3 (134,134') operatively connected to a fuel cell stack
- 4 assembly oxidant region inlet (36); a coolant loop (114)
- 5 operatively connected to a fuel cell stack assembly coolant
- 6 region inlet (48) and outlet (50), the coolant loop (114)
- 7 including a heat removal means (152, 156) configured to
- 8 transfer heat from a fuel cell stack assembly coolant; and
- 9 a humidifier (70) operatively connected in the coolant loop
- 10 (114) between the heat removal means (152, 156) and the
- 11 fuel cell stack assembly coolant region inlet (48) and
- 12 operatively connected in the inlet oxidant stream (134,
- 13 134'), the humidifier configured for both cooling the
- 14 coolant prior to return introduction of the coolant to the
- 15 fuel cell stack assembly (12) and for relatively increasing
- 16 the temperature and humidity of the inlet oxidant stream
- 17 (134, 134') prior to introduction of the inlet oxidant
- 18 stream to the fuel cell stack assembly oxidant region inlet
- 19 (36).

- 1 Claim 15 (new) The fuel cell power plant (110) of claim 1
- 2 wherein the heat removal means (152, 156) comprises a
- 3 radiator (152) and motorized fan (156).
- 1 Claim 16 (new) The fuel cell power plant (110) of claim 1
- 2 wherein the humidifier (70) comprises an energy recovery
- 3 device (70) for heat and mass transfer between the inlet
- 4 oxidant stream (134) and coolant (114''') being returned
- 5 from the heat removal means (152, 156) to the fuel cell
- 6 stack assembly (12).
- 1 Claim 17 (new) The fuel cell power plant (110) of claim 16
- 2 wherein the energy recovery device (70) comprises a gas
- 3 flow chamber (72) and a liquid coolant flow chamber (74)
- 4 separated by a fine pore enthalpy exchange barrier (76).
- 1 Claim 18 (new) The fuel cell power plant (110) of claim 16
- 2 wherein the energy recovery device (70) comprises a
- 3 saturator having the inlet oxidant stream (134) in direct
- 4 contact with coolant (114''') being returned from the heat
- 5 removal means (152, 156) to the fuel cell stack assembly
- 6 (12).